Aim: Inadvertent perioperative hypothermia has negative consequences on patients and resources. This audit aimed to compare practice at Airedale General Hospital against NICE standards.
Method: This was a prospective audit conducted over a two-week period (26/04/12 - 10/05/12). Elective and acute adult general surgical patients undergoing intermediate grade surgery and above under general or/and regional anaesthesia were included.
Results: NICE standards were set at 100% compliance for each criterion audited in this study. There were mixed results. Significant failings were found in the preoperative phase. None of the 28 patients were given written advice about perioperative hypothermia or had their temperatures measured in the hour before theatre transfer. Active warming therefore was not provided accordingly. Better results were achieved in the intraoperative phase; 57% of patients had temperature measurements every 30 minutes, 79% of patients received appropriate active warming and 68% of patients received warmed intravenous fluids. Postoperative care was excellent; all patients had temperature measurements in recovery on arrival and before departure. Two patients were sub-36C before departure. They received appropriate active warming before leaving recovery.
Conclusions: These results call for similar emphasis to be placed in the earlier perioperative period to avoid the harm of inadvertent perioperative hypothermia.

0363: CREEP DEFORMITY OF VERTEBRAL BONE: THE CHALLENGE OF ARCHITECTURAL IMAGING

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Creep deformity of vertebrae is defined as continuous deformation over constant physiological loading. Creep has been shown to contribute to vertebral deformities and wedge fractures in the elderly, leading to senile kyphosis.
We used microCT analysis combined with a novel barium staining technique to investigate the role of microcrack growth in creep deformity of human bone. Our main objective was to assess the relationship between creep deformity and the change in barium precipitation in human vertebral trabecular bone. 13 cubes of vertebral trabecular bone, with dimensions 12mm±0.5mm, were dissected from 4 cadaveric spines (T2-T9). Mean donor age was 84 (77–93) years. Cubes were stained with barium sulphate and scanned by microCT, before and after 2 hours of creep loading with a mean stress of 0.75 MPa.
Mean creep deformation was 6,470μs (0.65%). Paired t-tests performed on areas of barium staining, before and after creep loading, showed no significant difference. Staining was not significantly correlated to spinal level ($r=0.42$, $p>0,05$), or to creep deformity ($r=0.02$, $p>0.05$). The barium precipitation staining method was not successful in identifying creep-induced microcracks. Microcracks may close up if staining is delayed (creep recovery). This method of architectural analysis in creep deformity is not easily transferable.

0487: PEER TO PEER TEACHING WORKSHOP ON HEAD AND NECK AND NEUROANATOMY CAN HELP MEDICAL STUDENTS LEARN CLINICALLY APPLIED ANATOMY

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Background: Anatomy teaching has greatly changed over the years. This has resulted in medical students having a much more superficial level of anatomy knowledge than in the past when taught in its pure form. While integration of all aspects of preclinical medicine is important, a thorough anatomical background cannot be sacrificed.
Methods: Medical students from the University of Leicester attended a revision workshop focusing on applied head and neck anatomy. Their knowledge was assessed by short answer question (SAQ) quiz prior to small group teaching. Four weeks later the SAQ was repeated. This model was also used for a neuroanatomy workshop.
Results: A total of 69 students were assessed, where the average score was 48.2% (23.12/48). At the follow up, the average score was 74.5% (35.75/48). An unpaired t test with Welch's correction showed that the improvement in knowledge was statistically significant ($p<0.0001$, 95% CI 31.96-20.69). We are currently awaiting the second submission of the SAQ for the neuroanatomy workshop.
Conclusion: The feedback received from students as well as the results obtained shows that small group work teaching is effective in learning anatomy at medical school.

0561: MORPHOLOGY OF THE ANCONEUS MUSCLE AND ITS POSSIBLE USE AS A ROTATIONAL MUSCLE FLAP IN SNAPPING TRICEPS SYNDROME

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Introduction: Snapping triceps syndrome is an uncommon cause of ulnar nerve dislocation. In severe cases, surgical measures are indicated, but data regarding outcomes is limited. The function of the anconeus muscle is also uncertain. This study aims to delineate the morphology of the anconeus muscle and explore its use as a rotational muscle flap.
Material and Methods: Five cadaveric upper limbs from four specimens were dissected (age=83.75±9.89years, M=2,F=2) to delineate the course of the anconeus muscle. The superior and inferior borders were reflected to investigate the neurovasculature beneath. Photographs and measurements were taken for qualitative and quantitative descriptions respectively.
Results: The anconeus is a triangular muscle 74.8±15.2mm long and 22.6±1.5mm thick proximally, tapering to 2.0±0.6mm distally. Its fibers were transversely oriented 54.5o±11.4o. In most specimens (n=4,80%), there were contributions of fibers from the triceps. The neurovascular pedicle was consistently found on the ulnar border consisting of the recurrent posterior interosseous artery and a radial nerve branch.
Conclusions: The anconeus muscle is likely a continuation of the triceps brachii. The location of the neurovascular pedicle and its length supports its use as a rotational flap. Its oblique orientation would also exert a lateral stabilizing force on the medial head of the triceps.

0562: VARIATIONS OF THE PES ANSERINUS WITH POTENTIAL FUNCTIONAL AND CLINICAL IMPLICATIONS

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Introduction: Current literature cites the importance of the tendons forming the pes anserinus for providing adequate tendon grafts. This study attempts to quantify the anatomy of these tendinous attachments.
Methods: Cadaveric legs (n=42) were dissected and photographed. The distal attachments of tendons were identified and individual tendinous bands were measured. The results were analysed to determine any morphological variations.
Results: The semitendinosus tendon produced variable bands and were designated ST1 (proximal), ST2, ST3 or ST4(distal). In all specimens, tendinous bands from the sartorius and gracilis muscles were observed, and ST4 bands extended anteriolaterally to contribute to the crural fascia, connecting the anterior and posterior compartments. The most proximal point of the gracilis was 49.66±8.95mm while the most distal point of the semitendinosus was 69.83±7.19mm from the tibial plateau. ST1 and ST4 bands were ubiquitous, whilst ST2 (28/42;66%) and ST3 (8/42;19%) bands were not.
Discussion: Six centimeters inferior to medial tibial plateau is presented as a reliable incision point for hamstring tendon harvest. The distal extension of the pes anserinus is greater than previously reported. These data provide a clear quantitative description of the pes anserinus and demonstrate the contribution of the semitendinosus tendon to the anterior and posterior compartments of the leg.

0580: USE OF CONNEXIN43 ANTISENSE ODN GEL COATED ALGINATE MICROSPHERES IN WOUND HEALING

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Downregulating the gap junction protein Cx43 using Cx43 asODN has shown to improve the rate and quality of wound healing. The aim was to develop a suitable wound healing device using bioactivated alginate microspheres coated with such molecules. Using electrostatic bead generation, alginate microspheres were produced to be coated with a pluronic gel containing Cx43 asODN, and their effects on wound healing investigated on murine models. In vitro testing, including size distribution studies, pluronic gel interaction with alginate microspheres and asODN interaction